

WHAT IS CLAIMED IS:

1. A device for monitoring movement of an object, comprising:
a first module configured to secure to the object;
a second module, capable of electrically connecting to said first module, including at
5 least a rechargeable battery and a memory capable of storing a history of movement data;
and
a third module, capable of electrically connecting with said second module, including
a data modem capable of connecting to a remote station, and a battery charger;
wherein when said second module is connected to said first module, said memory
10 periodically records available location data representing a position of said device at the time
of recording; and
wherein when said second module is connected to said third module, said memory
downloads through said data modem and said battery charger charges said battery.
- 15 2. The device of claim 1, further comprising a band capable of securing said
first module to said object, said band being an electrically conductive plastic.
3. The device of claim 1, wherein said first module includes a coordinate
receiver, and said battery powers said receiver when said first module is electrically
20 connected to said second module.
4. The device of claim 1, further comprising a fourth module interchangeable
with said second module.
- 25 5. The device of claim 1, further comprising an initialization module capable of
initializing said memory.
6. The device of claim 1, wherein said first and second modules, when
connected, have a size and shape for easy support around the limb of a user.

7. A system for monitoring movement of an object, comprising:
a first module configured to secure to said object, said first module including a coordinate receiver and an antenna;
5 a plurality of second modules, each capable of electrically connecting to said first module, and each including at least a rechargeable battery and a memory capable of storing a history of movement data from said coordinate receiver; and
a third module, capable of electrically connecting with at least one of said second modules, including a data modem capable of connecting to a remote station, and a battery
10 charger.
8. The system of claim 7, wherein when one of said second modules is connected to said first module, said memory periodically records available location data representing a position of said device at the time of recording; and
15 wherein when said one of said second modules is removed from said first module and connected to said third module, said memory downloads through said data modem and said battery charger charges said battery.
9. The system of claim 7, further comprising tamper detection circuitry in said
20 first module capable of logging a tamper event in said memory in response to attempted removal of said first module from the object.
10. A method for recording movement of an object, wherein a first module is attached to the object in a tamper resistant manner, comprising:
25 electrically connecting a second module to the first module, said second module including at least a memory and a battery;
obtaining data representing a position of said first module at a particular time;
storing said data on the memory in said second module;
repeating said obtaining and storing for a period of time;

after said period of time, disconnecting said second module from said first module and connecting the second module to a third module, the third module including at least a data modem and a battery charger;

5 downloading the contents of the memory in the second module to a remote location through the data modem; and
 recharging the battery in the second module via the battery charger in the third module.

11. The method of claim 10, further comprising at least one fourth module including
10 at least a memory and a battery, said method further comprising:

 connecting said fourth module to said third module substantially when said second module is connected to said first module; and

 connecting said fourth module to said first module substantially when said second module is connected to the third module.

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12. The method of claim 10, further comprising storing tamper data in said memory in response to an attempt to remove said first module from the object.

13. A method for recording movement of an object, wherein a first module is
20 attached to the object in a tamper resistant manner, a plurality of second modules each include at least a memory and a battery, and a third module is configured to simultaneously connect with at least some of the plurality of second modules, said method comprising:

 connecting one of the plurality of second modules to the first module;

 connecting at least some of the plurality of second modules to the third module;

25 obtaining, at said first module, data representing a position of the first module at a particular time;

 storing said data on the memory in said one of the plurality of second modules;

 repeating said obtaining and storing for a period of time;

after said period of time, substituting the one of the plurality of second modules with one of the at least some of the plurality of second modules, such that said obtaining, storing, and repeating will continue with the one of the at least some of the plurality of second modules;

- 5 connecting the one of the plurality of second modules to the third module;
 downloading the contents of the memory in the one of the plurality of second modules to a remote location through the data modem; and
 recharging the battery in the one of the plurality of second modules via the battery charger in the third module.